RHODORA, Vol. 94, No. 879, pp. 323–325, 1992

COMMENTS ON THE PHENOLOGY OF *CARPHEPHORUS CORYMBOSUS* (COMPOSITAE)

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The genus *Carphephorus* includes 4 species (Correa and Wilbur, 1969; King and Robinson, 1987). There is no published information on the phenology of any *Carphephorus* species. This report gives the phenology for *Carphephorus corymbosus* (Nutt.) Torr. & Gray.

Carphephorus corymbosus is a perennial herbaceous composite. Plants of this species consist of an acaulescent rosette of spatulate to oblanceolate leaves from thickened, fibrous roots, and a long green terete stem which branches into an inflorescence with purple to lavender flowers (Correa and Wilbur, 1969). Stems have alternate leaves which become progressively smaller distally.

Carphephorus corymbosus grows in open, sandy areas in sand pine scrub, sandhills, and open pinewood barrens from southeastern Georgia throughout most of peninsular Florida (Correa and Wilbur, 1969; Wunderlin, 1982). The species is an indicator species of sandhills. I examined 3848 basal rosettes at 12 sandhill communities in north and central Florida from 24 August to 8 November 1988 (Figure 1). *Carphephorus corymbosus* was absent from 2 of these study sites (Suwannee River State Park, Suwannee Co. and San Felasco Hammock Preserve, Alachua Co.). Its density at the 10 remaining sites ranged from .004 basal rosettes per m^2 at Wekiwa Springs State Park, Orange Co. to .470 at Spruce Creek Preserve, Volusia Co. (mean = .086 basal rosettes per m^2 for the 10 study sites). Density was determined in late summer and early fall.

Shoots emerge from vertical roots in early March. Each root may produce from 1 to 5 basal rosettes ($\bar{x} = 3$), which arise a few mm below the surface and probably from the root/hypocotyl. These basal rosettes often arise from locations on the rootstock different from those of the previous year. Although 1–5 basal rosettes may be produced, usually only one produces a flowering stem (range: 42.8–136.2 cm, $\bar{x} = 74.9$ cm, $n = 197$; stems were measured only after buds had opened). Rarely, 2 basal rosettes produced stems; in these cases, the second stem was always much shorter than the first. This variation may be an age difference; older rootstocks may produce more basal rosettes and eventually more stems. More research is needed in this area.

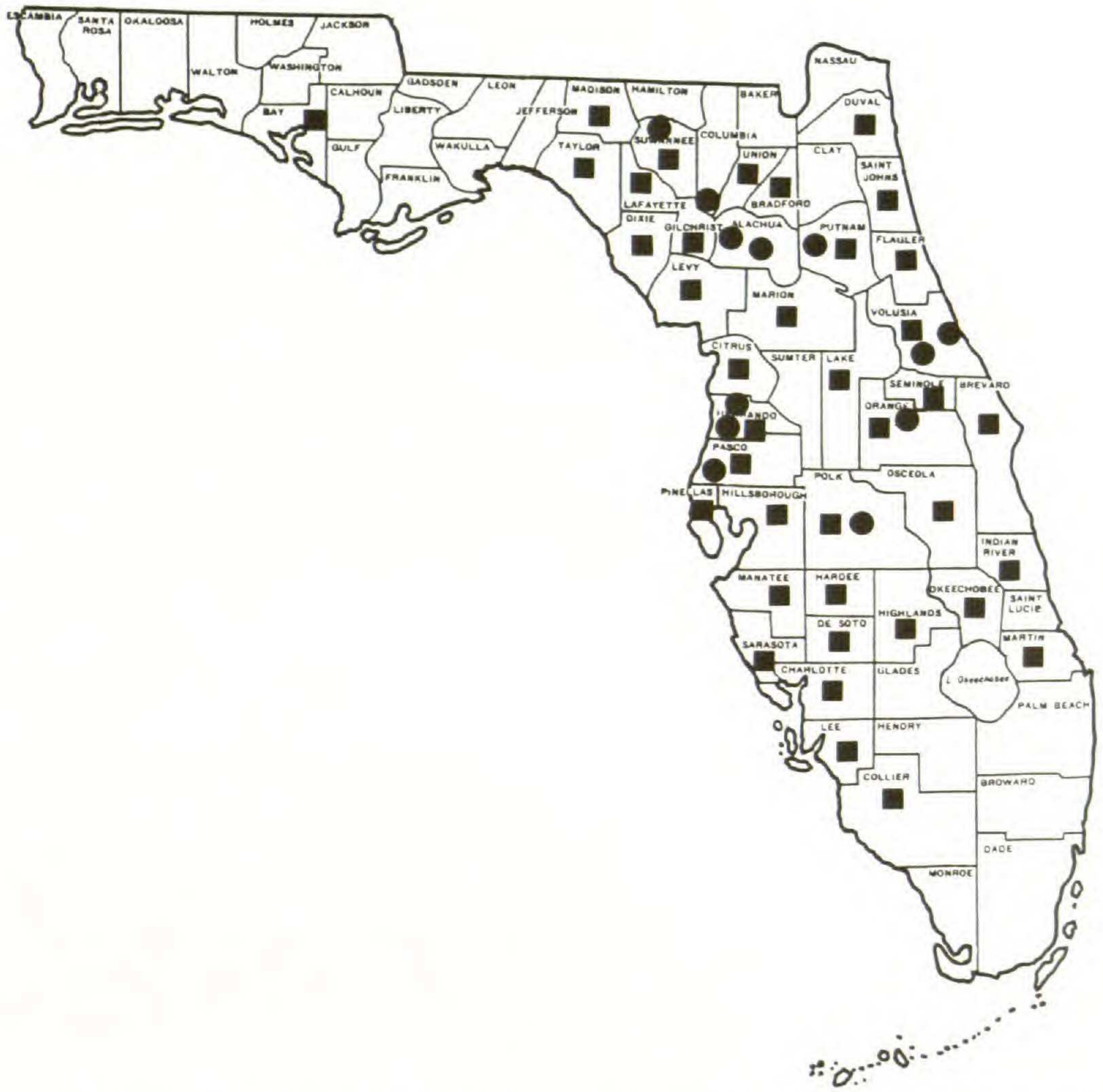

Figure 1. Range of *Carphephorus corymbosus* in Florida (■) and 12 study site locations (●): Suwannee River State Park, Suwannee Co.; O'leno State Park, Columbia Co.; San Felasco Hammock and Morningside Nature Center, Alachua Co.; Interlachen, Putnam Co.; Spruce Creek Preserve and Orange City, Volusia Co.; Wekiwa Springs State Park, Orange Co.; Janet Butterfield Brooks Preserve and Sandhill Boy Scout Reservation, Hernando Co.; Starkey Well Field Area, Pasco Co.; Bok Tower Gardens, Polk Co.

Of the 3848 basal rosettes examined, 9.25% produced inflorescences. Terete stems first appear in late May and reach full length by early June. Around mid-June buds develop on the ends of the corymbs; flowers appear in mid-August. Leaf fall occurs in December and the stems and corymbs dry out but remain standing well into the next year, and often may be seen alongside new basal rosettes with stems. On several occasions, a root mass was dug up (reburied after examination); it bore a new basal rosette with a stem and an old dried stem from the previous year.

ACKNOWLEDGMENTS

I am grateful to I. Jack Stout and Joseph A. Beatty for their assistance in this study. Robert Wilce, George Ellmore, and Loran Anderson improved an earlier draft of this manuscript. I thank Richard P. Wunderlin and Loran Anderson for the county records used in Figure 1. I thank Ellis Collins, Fred Hunt, The Nature Conservancy, Florida Department of Natural Resources, Southwest Florida Water Management District, Morningside Nature Preserve, Bok Tower Gardens and Sandhill Boy Scout Preserve for allowing access to the study sites.

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